



AUSA Winter Symposium

Special Presentation

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Assistant Secretary of the Army

(Acquisition, Logistics and Technology) and

Army Acquisition Executive

March 5, 2004

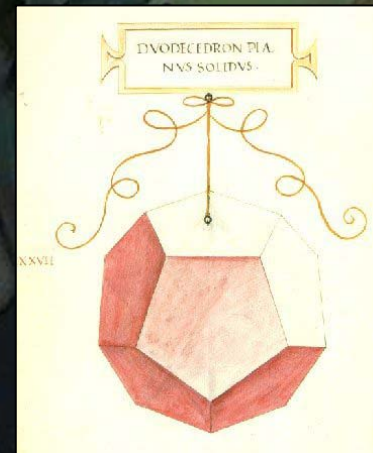
Trivia Question

.....What is the smallest whole number most divisible by integers?

Hint: It has something to do with the geometry of truncated icosahedron (first known by Archimedes and later rediscovered during the Renaissance by Da Vinci and others), a TV program and Buckyballs.

Leonardo da Vinci (1452-1519)

This rendition of the truncated icosahedron is from the book *De Divina Proportione* ("On Divine Proportion") by Fra' Luca Pacioli, published around 1498. The drawing is ascribed to Leonardo da Vinci. He seems to have invented this type of "skeleton model", which lets us view both the outside and the inside of the polyhedron.





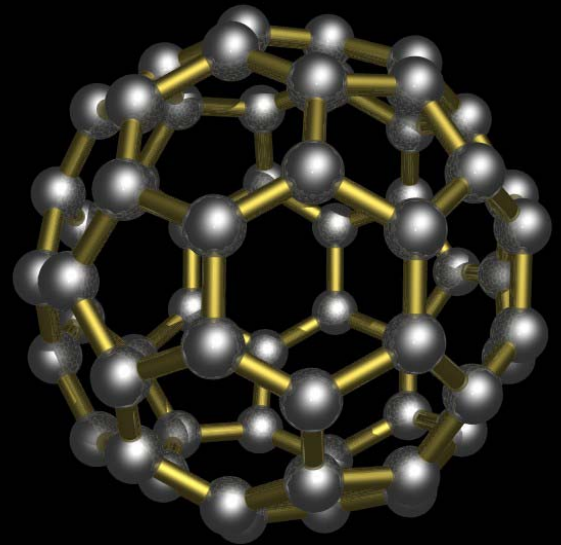
And the answer is.....

...the number 60, which by no accident is used to measure time. Note: 60 is divisible by 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30 and 60.

The TV Program is 60 Minutes!

And Buckyballs are made up of just carbon atoms arranged in the geometry of a truncated icosahedron - where individual carbon atoms are placed at the corners of each of 12 pentagons, 5 corners times 12 pentagons equals 60 carbon atoms.

The Third Elemental Form of Carbon!



Buckminsterfullerene
“Buckyball”



Pentagon



Hexagon

Now There are Three Elemental Forms of Carbon

The Process

Capability
Need

Acquire
Develop
Contract
Test
Produce
Field

acquisition

Operate/Sustain
Upgrade/Modernize
FMS

Retire
Demil

ACQUISITION

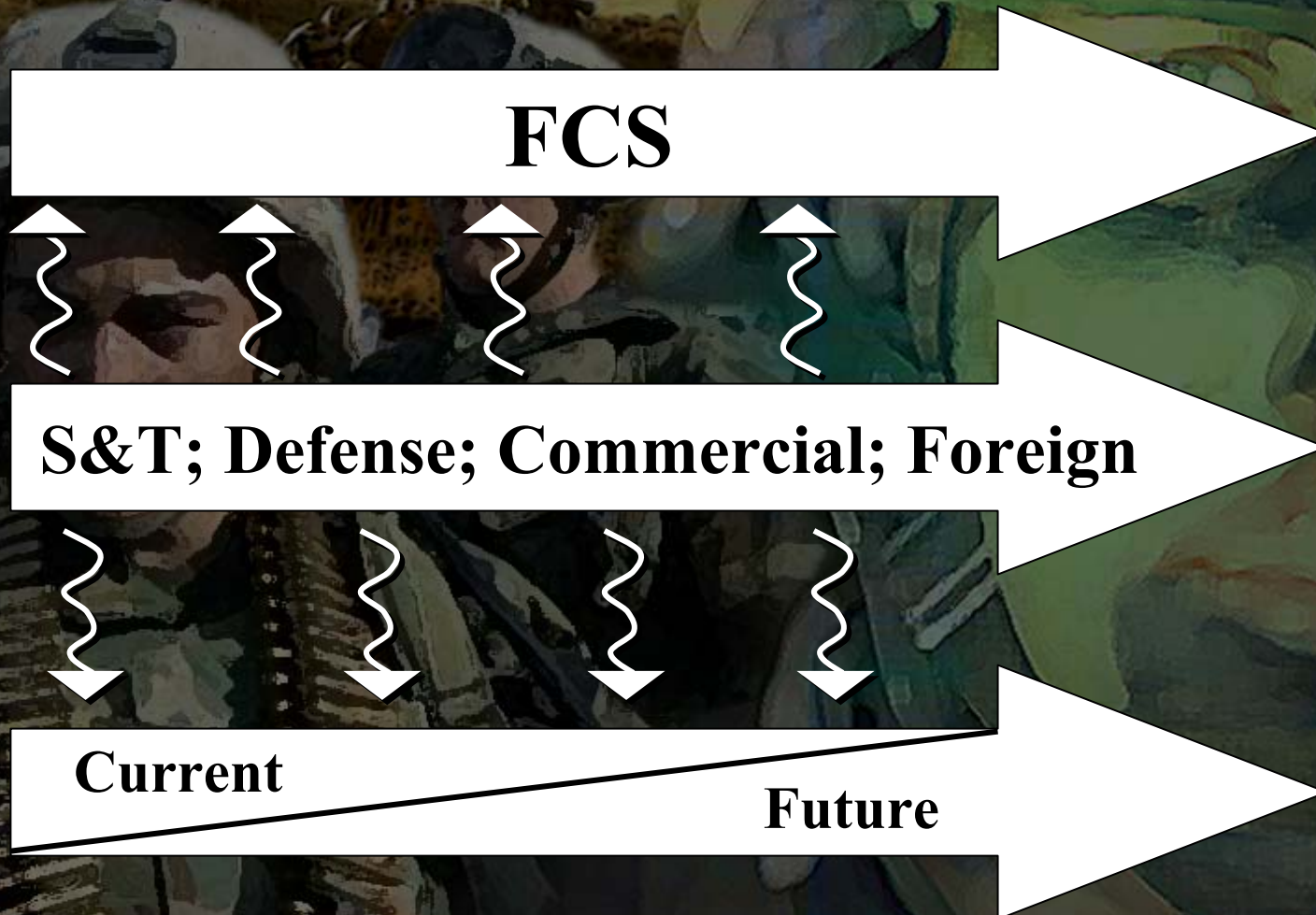


D O T L M P F



Current → Future Force

What Is Our Strategy For Getting There?



Interceptor Body Armor (IBA)

IBA = Outer Tactical Vest (OTV) + Ballistic Inserts (set)

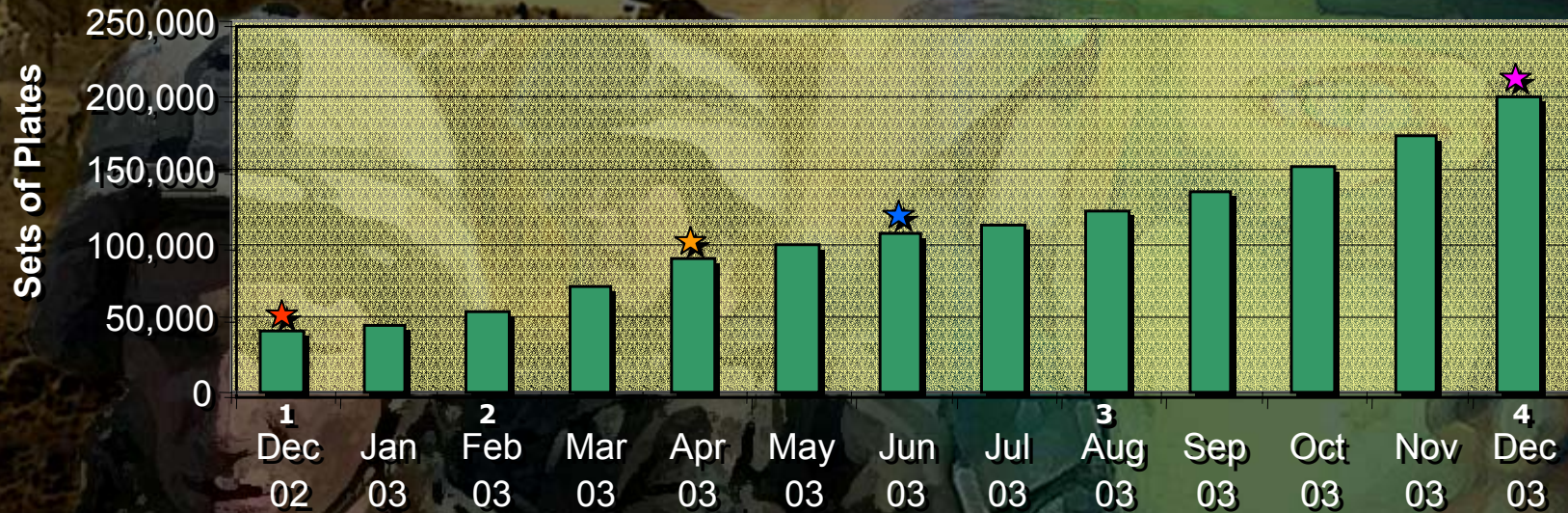


Ballistic Inserts are either the 4lb Small Arms Ballistic Inserts (SAPI) containing Spectra-Shield or slightly heavier plates made from Kevlar or like products

Ballistic Plate Sets

(SAPI Sets)

Cumulative Delivered Quantity



1. Producers included Simula, Ceradyne and ArmorWorks

2. Point Blank added

3. Protech added

4. Force One added



Army ramped production to the maximum rate to field deploying combat units before deployment into Iraq. Decision made to waiver weight requirement.



Army successfully met the operational requirement of distributing IBA to all Combat Forces prior to deployment into Iraq.



Decision to distribute IBA to all Soldiers and DoD Civilians.



CSA decision to keep production ramped at 25K sets per month until entire Army requirement is complete.

Threats

- 7.62 X 39 mm ball– AK-47 Round (Steel Core)



- 7.62 x 54 mm ball– Sniper & Light Machine Gun Round (Steel Core)



- Improvised Explosive Device (IED)
Fragment Simulating Projectile (FSP) 1



- Improvised Explosive Device (IED)
Fragment Simulating Projectile (FSP) 2



- Rocket Propelled Grenade (RPG)



- Blast Vehicle Mine (4 lb blast)



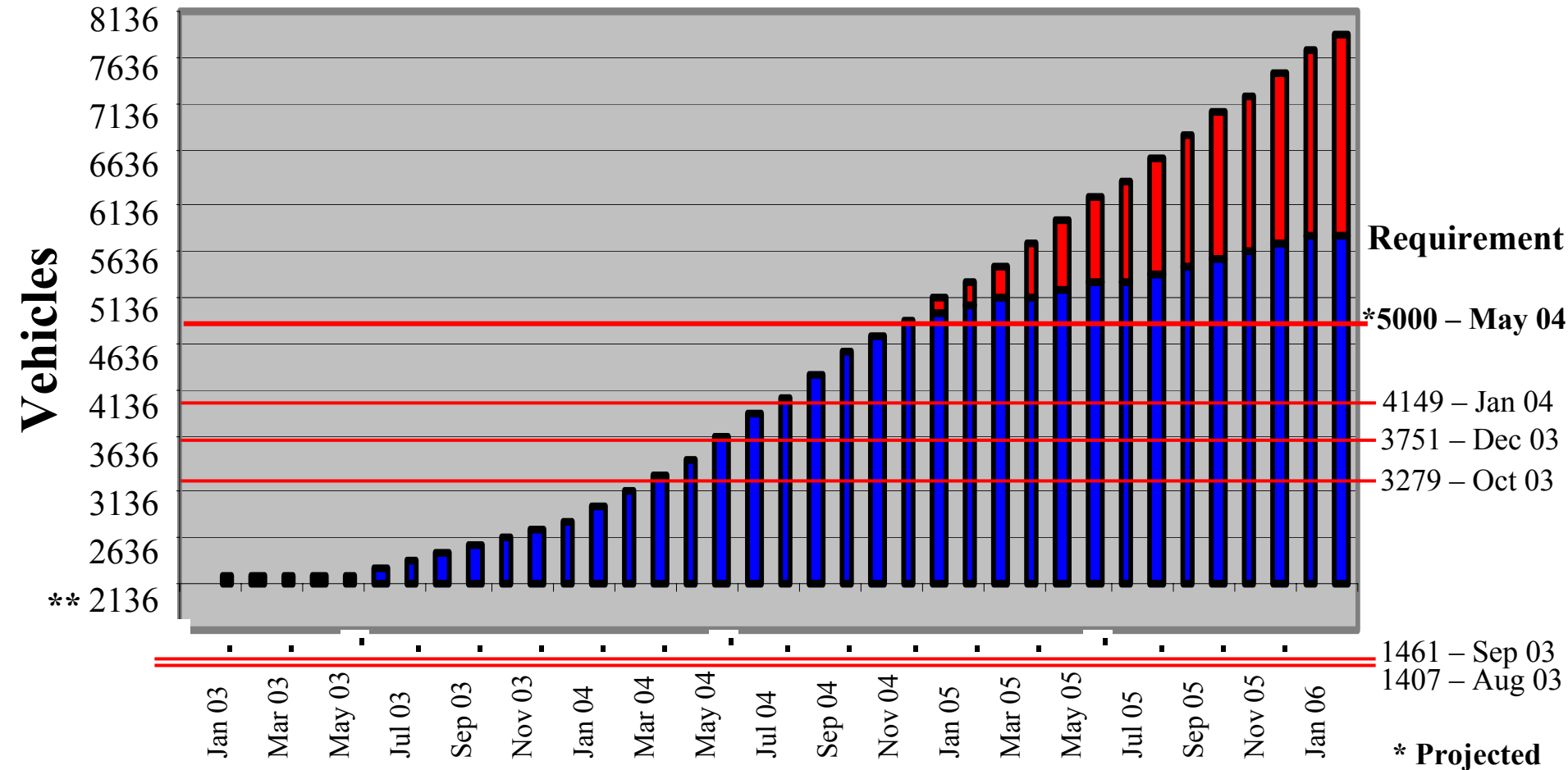
'Fast and the Furious' UAH Production Acceleration



* Projected

M1114 AOR Requirements

HMMWV Production Acceleration



869 – Organic to Units
 277 – OIF II Organic Assets
990 – Redistribution Assets From MACOMS
 2136 – Other Than New Production To Meet AOR Requirement

Survivability

Soldier Field Modifications = Mad Max Machines



Soldier Survivability Modifications Then & Now

Vietnam Conflict



OIF



World War II



Vietnam Conflict

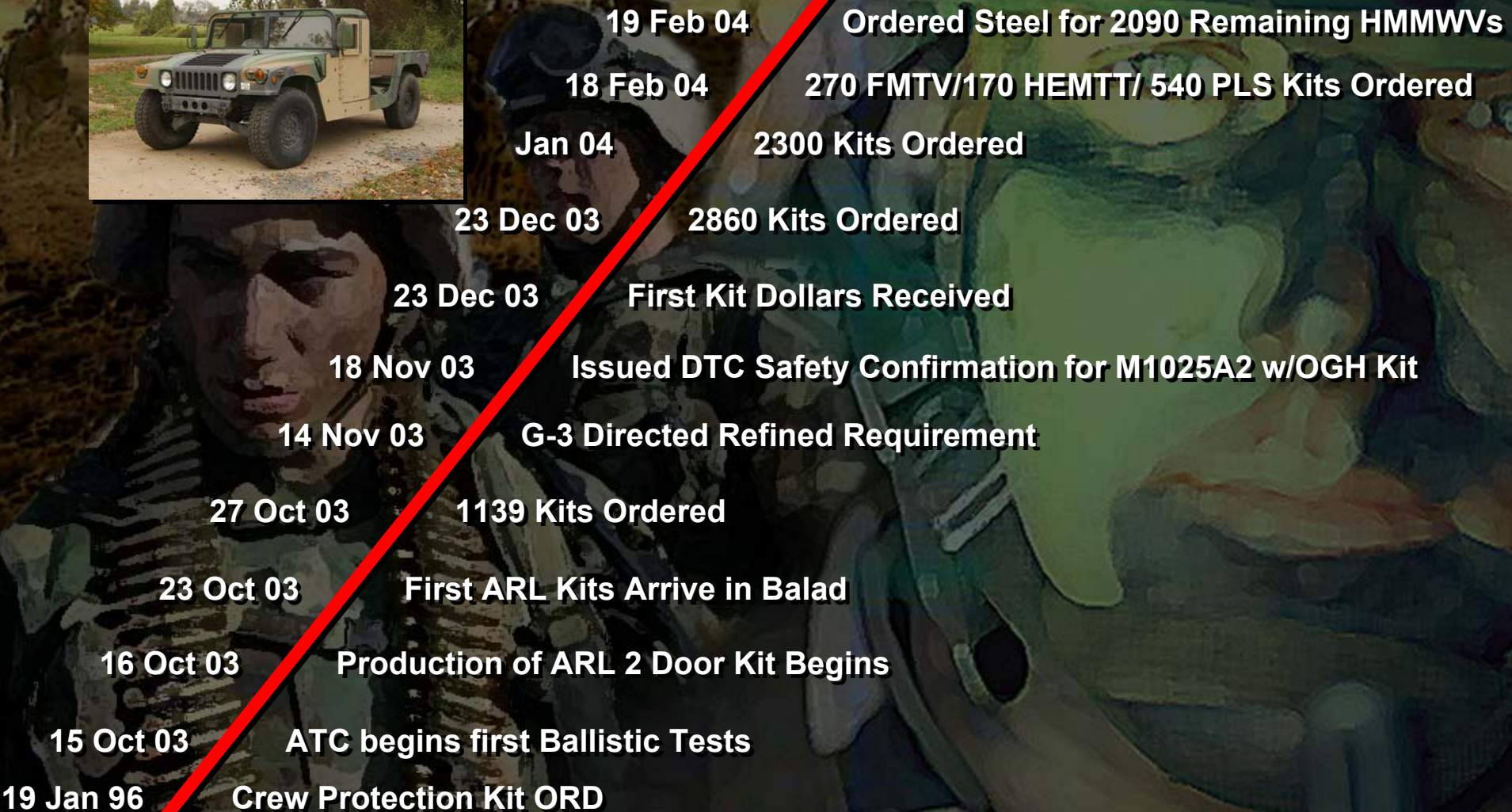


OIF



'Days of Thunder'

UAH Kit Testing and Production



‘Cannonball Run’

FMTV / HEMTT / PLS Kits

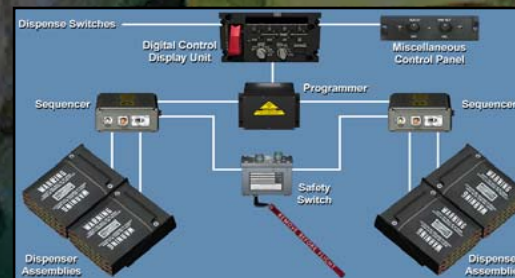


- 12 Feb 04** **32 HEMTT Kits Installed / 35 FMTV Kits Installed**
- 11 Feb 04** **Received HEMTT W/armor Kit for Ballistic Tests**
- 5 Feb 04** **Received PLS Kit for Test**
- 19 Dec 03** **Issued Safety Confirmation for FMTV**
- 11 Dec 03** **Issued Amendment to DTC Safety Confirmation for HEMTT**
- 24 Nov 03** **CJTF-7 Memo Adds HETS, PLS M915**
- 19 Nov 03** **Initiated HEMTT and FMTV Tests**
- 14 Nov 03** **G-3 Directed Requirement for HEMTT and FMTVs**

Aircraft Survivability Equipment

AN/ALE-47 Counter Measures Dispenser System (CMDS)

ALQ-156



ALE-47

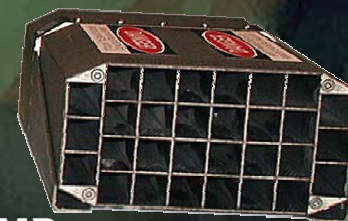
Common Missile Warning System / Improved Countermeasure Dispenser (CMWS/ICMD)



CMWS



ICMD



ATIRCM/CMWS/ICMD

Bradley Reactive Armor



Rapid Equipping Force

Force Protection Package



EXSPRAY



MAGNOMETERS



FIBERSCOPE



FERROTRACE



GE ITEMIZER3

The image is a composite. On the left, there is a photograph of soldiers in a desert environment, with a helicopter visible in the background. On the right, there is a large, stylized, green-tinted face, possibly a painting or a digital manipulation, which appears to be looking forward. The text is overlaid on this composite image.

Strategic Concern

**Can We Do This
Again?**



Strategic Concern

**Can We Do This
Better, Faster,
Cheaper?**



The image is a composite. The left side shows a photograph of two soldiers in a desert setting. The soldier in the foreground is wearing a helmet and a tactical vest, looking slightly to the left. Another soldier is visible behind him. In the background, there's a military vehicle and some structures. The right side of the image is dominated by a large, stylized, abstract face. This face has a greenish-yellow color scheme with dark, swirling patterns. It has large, intense eyes and a somewhat distorted, mechanical appearance. The text "Back-Up Slide" is centered over the image in a white, bold, sans-serif font.

Back-Up Slide

Armor Kit Status

Armor Kit Status Report

Vendor	Required	On Contract	Produced	Shipped	Fielded	Comments
ARL Kits	4810	4810	1349	1300	1177	
OGH	1500	1500				Delivery May-Aug 04
TBD Troop Carrier	2090					Long lead stell ordered
OGH Windshields	8400	5200				
Simula Kits		10	9			1 kit tested at ATC. No further procurement
Armor Works Kit		10	9			1 kit tested at ATC. No further procurement
OGH Kits (Original)		20				
Radian (FMTV)	1150	35	35	35	35	
Simula (HEMTT)	1080		182	182	57	Partial awaiting air conditioning

As of 26 FEB 04